

NEW SPECIES OF MOLLUSKS FROM REDONDO,  
CALIFORNIA

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Among the many interesting mollusks dredged by John Q. and Tom Burch off Redondo Beach, California, the following appear to be new to science, and are here described.

*Nuculana burchi* sp. nov. (Plate 14, fig. 3). Description.—Shell brownish or olivaceous, trigonal, oblong, rather flat; rounded anteriorly, bluntly pointed posteriorly; posterior dorsal margin slightly curved; beaks subcentral, not prominent. Exterior sculpture of flattened ribs with narrower interspaces; sculpture less arcuate than growth lines. Anterior teeth 20-22, posterior teeth about 15. Resilium triangular, short, slightly projecting.

Type, right and left valves, No. 1066 Los Angeles County Museum. Type and 10 additional valves collected by John Q. and Tom Burch, in 50 fathoms, off Redondo, California. Two additional valves taken 5 miles off El Segundo, California. The type right valve measures: long. 12.2, alt. 7.7, lat. 2.4 mm. The largest valve in the type lot (Burch coll.) measures 14x8.7x2.5 mm.

This shell is very similar to *N. cellulita* Dall, but differs from that species in flatter ribs and narrower interspaces, producing a smoother surface; and shorter and more projecting resilium. It is also proportionately more slender than *cellulita*, and no specimens seen are as large as adults of that species. *Burchi* differs from *N. taphria* Dall in being flatter, with blunter posterior end, straighter posterior dorsal margin, and very much finer ribbing.

*Volvulella tenuissima* sp. nov. (Pl. 14, fig. 1). Shell imperforate, cylindrical, very slender; aperture narrow, as long as the shell; rounded in front; spine short. Color grayish-white, with brown stain from spine down inner side of aperture to and including the columella. Axial sculpture of growth lines curved towards the extremities; spiral sculpture of exceedingly fine, wavy striations that cover the entire surface of the shell, but are visible only with the aid of a fairly strong lens.

This shell is nearest to *V. cylindrica* Carpenter, but is smaller, much more slender, and lacks the distant spiral striae characteristic of that species.

The type, No. 1073 Los Angeles County Museum, and numerous additional specimens were collected by John Q. and Tom Burch off Redondo, California, in 75 fathoms. Paratypes are in

the U. S. National Museum, California Academy of Sciences, and in the Burchi and Willett collections.

The type (not quite adult) measures: Long. 4.3, lat. 1.6 mm. The largest specimen at hand measures 6x2.1 mm.

*Philine californica*, sp. nov. (Pl. 14, fig. 4). Shell of two or more whorls, oval, inflated, slightly contracted below the apex; spire sunken, concealed, only the extreme tip being visible. Aperture very large, oval, contracted above; outer lip extended slightly above the apex and curved down to join the body-whorl; inner lip thin, twisted, and flattened where it joins the body-whorl in front of a minute umbilical groove. Sculpture of fine, close, rather regularly-spaced axial striae, crossed by fine, irregularly-spaced spiral striae, forming a latticed sculpture; on the upper part of the shell there are minute tubercles at the intersections of the striae. Color dull white, with a broad, light-brown band slightly above the middle.

A rather poor photograph of the living specimen shows that the animal is much too large to be contained in the shell, the head, disk, foot and mantle being outside.

The unique type, No. 1074 Los Angeles County Museum, was collected by John Q. and Tom Burch off Redondo, California, in 50 fathoms. The type measures: alt. 5.5, lat. 3.6 mm. (lip not entire).

The latticed sculpture of this little shell would place it in the Section *Laona* A. Adams, not previously reported from the Pacific coast of America.

*Melanella rosa* sp. nov. (Pl. 14, fig. 2). Shell imperforate, slender, straight except for an almost imperceptible inclination of the first four whorls to the right. Whorls 12, increasing in diameter very slowly; the last whorl proportionately very high and unusually straight along the sides. Sutures appressed, obscure. Aperture narrow and high, very acutely angled above. Outer lip normal; inner lip reflected over and appressed to the base and continuing to join the outer lip. Color bluish-white, except where the brownish animal shows through.

The unique type, No. 1075 Los Angeles County Museum, was dredged by John Q. and Tom Burch in 125 fathoms, off Redondo, California. It measures: Long. 11, lat. 2.5 mm.

In shape this species is similar to some of the more slender specimens of *M. rutila* Carpenter, but it is very much larger than that shell. It differs from *M. micans* Carpenter in more slender shape (nearer parallel sides), and proportionately much higher aperture and last whorl.

This species is named for Mrs. Rose Burch, wife of the senior collector and mother of the junior.

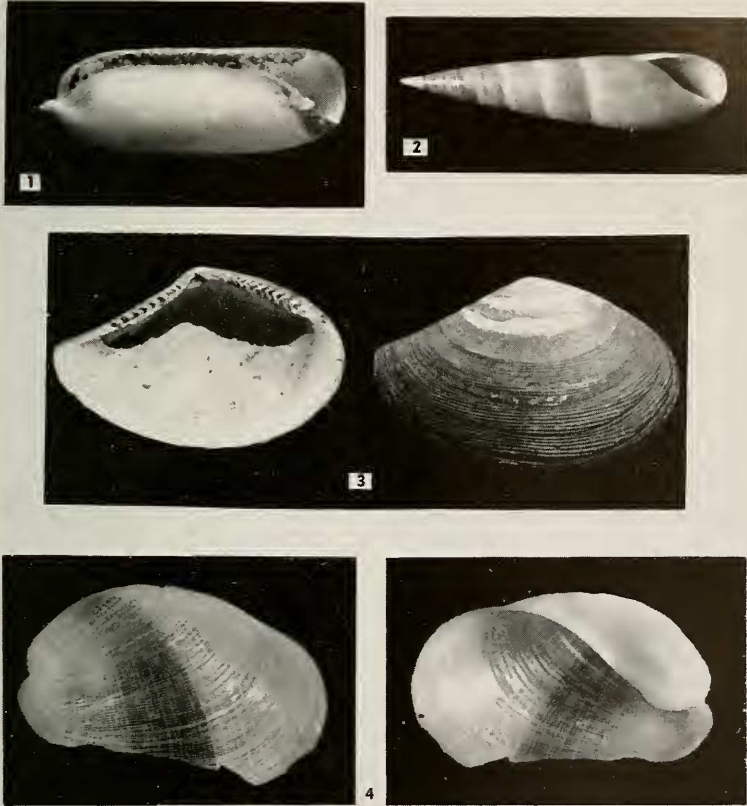


PLATE 14

1. *Volvulella tenuissima* Willett, type, X 10.
2. *Melanella rosa* Willett, type, X 4.
3. *Nuculana burchi* Willett, type, X  $3\frac{1}{8}$ .
4. *Philine californica* Willett, type, X  $7\frac{1}{2}$ .